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(54) IMPROVEMENTS IN SEALING WADS FOR BOTTLE CAPS

(71) We, JOHNSEN & JORGENSEN (PLASTICS) LIMITED, a British Company, of Grinstead Road, London S.E.8, do hereby declare, the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention is concerned with the provision of an improved sealing wad for use with a standard metal bottle cap known in the trade as a "Stelcap". (Registered Trade Mark).

At present these metal caps are usually provided with an ordinary disc type sealing wad which is effective but which precludes the satisfactory use of a pouring device in the mouth of the bottle. The difficulty is that to form the required seal between the rim of the bottle and the wad the pouring device must be lower than or at best flush with the top of the rim of the bottle. In that position, the pouring characteristics of the pouring device are impaired e.g. the top edge of the bottle interferes with the pour and causes the liquid to dribble down the neck of the bottle which produces a messy pour.

It is an object of the invention to provide an improved sealing wad which effectively seals the mouth of the bottle while allowing a pouring device to stand proud of the mouth.

According to the present invention there is provided a sealing wad for the mouth of a bottle said bottle being fitted with an inserted pouring device the top of which projects above the bottle rim wherein the wad has a substantially flat central part to close the opening in the pouring device, an annular substantially U-shaped part to seat upon the rim of the bottle and an outer annular shoulder to seat against the skirt of the bottle cap.

We have found by experiment that for the pouring device to perform as intended it should stand at least 5 mm proud of the bottle rim and with a conventional wadded sealing cap in which the wad is a flat disc that is impossible without damage or permanent deformation of the pouring lip. On the other hand with our new shape of wad the pouring device can be disposed in substantially any desired position.

In order that the invention be more clearly understood reference is now directed to the accompanying drawings given by way of example in which:—

Figure 1 is a section and half plan of our new wad and

Figure 2 is an assembly showing the wad in position.

As illustrated in Figure 1 the wad 1 has a substantially flat central part 2 which in this case is dished, a U-shaped annular part 3 and an outer shoulder 4. Instead of being dished the central part 2 may extend substantially straight across the top as illustrated at 5. When the dished construction is used we provide a flat annular ridge 6 between the central part and the U-shaped part. The underside of the U-shaped part 3 is ribbed at 7 for improved scaling.

Referring now to Figure 2 it will be noted that the wad 1 is sandwiched between a bottle cap 8 above and the bottle 9 and pourer 10 below. In the dished embodiment there are three annular scaling points or areas:—

(1) at 11 on top of the bottle rim
(2) at 12 on the pouring lip on the pourer
(3) at 13 inside the pourer itself where the wad forms a plug

In the non-dished embodiment sealing point 13 is omitted. The cap may be screwed roll-formed or crimped into position and the pourer is disposed in a desired pouring position as illustrated.

Advantages and features of this invention are:—

1. This design of wad allows pourers to stand proud of a bottle mouth whilst using a standard cap and bottle neck.

2. This design of wad can, if desired, be used on bottle neck/cap assemblies that do not include a pourer.

3. The main seal is between the bottle neck rim and the wad and this preferably includes three sealing rings, which due to

their flexibility will take up any minor imperfections on the sealing surfaces.

We have therefore provided an annular sealing wad shaped adjacent to its periphery to seat upon the rim around the mouth of a bottle, with an outer annular shoulder to engage with the skirt of a bottle cap and with a central part spaced above the mouth of the bottle so that when in position the wad seals the mouth of the bottle and allows an inserted pourer to stand proud of the bottle mouth.

WHAT WE CLAIM IS:—

1. An annular sealing wad, for a bottle, wherein the wad has a U-shaped portion adjacent to its periphery to seat upon the rim around the mouth of the bottle, an outer annular shoulder to engage with the skirt of a bottle cap and a central part spaced above the mouth of the bottle so that when in position the wad seals the mouth of the bottle and allows an inserted pourer to stand proud of the bottle mouth.

2. A sealing wad for the mouth of a bottle which is fitted with an inserted pouring device the top of which projects above the bottle rim wherein the wad has a substantially flat central part to close the opening in the pouring device, an annular substantially U-shaped part to seat upon the rim of the bottle and an outer annular shoulder to seat against the skirt of the bottle cap.

3. A sealing wad according to claim 1 or 2 wherein the central part is dished.

4. A sealing wad according to claim 3 having the dished central part and a flat annular ridge between the central part and the U-shaped part.

5. A sealing wad according to claim 4 or 5 wherein the underside of the U-shaped part is ribbed for improved sealing.

6. A bottle cap provided with a sealing wad according to any of claims 1 to 5.

7. A bottle including a cap according to claim 6.

8. A sealing was substantially as hereinbefore described with reference to the accompanying drawings.

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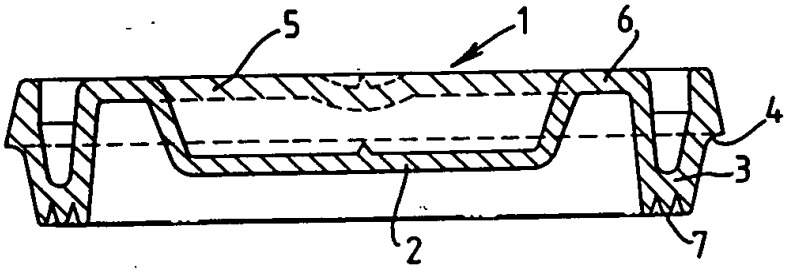
2 SHEETS *This drawing is a reproduction of the Original on a reduced scale*
Sheet 1

FIG. 1.



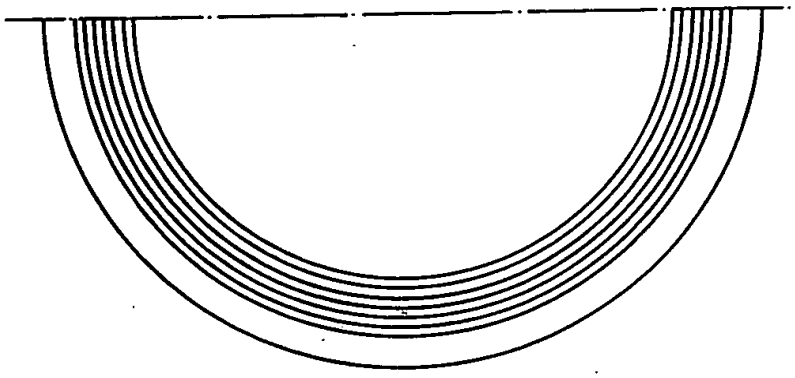


FIG. 2.